Fig.1

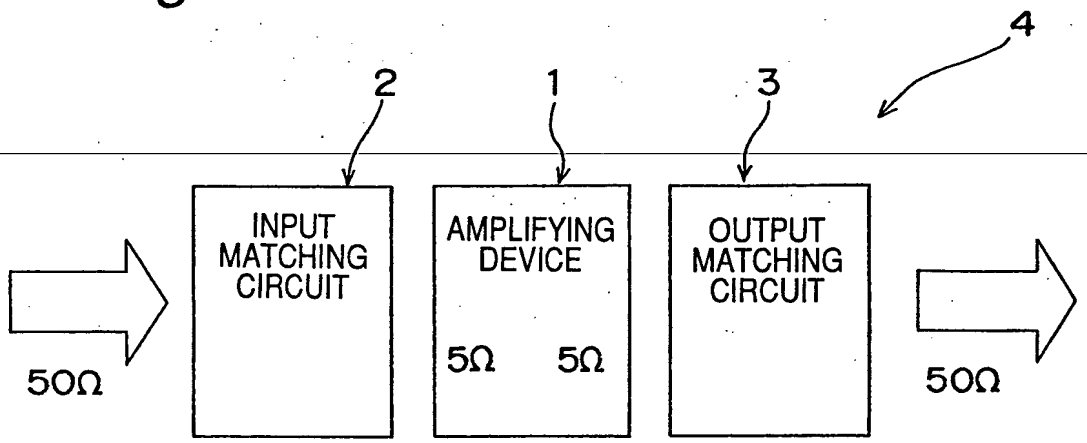

4
2
1
3
INPUT MATCHING CIRCUIT
AMPLIFYING DEVICE
5Ω 5Ω
OUTPUT MATCHING CIRCUIT
50Ω
50Ω

Fig.2

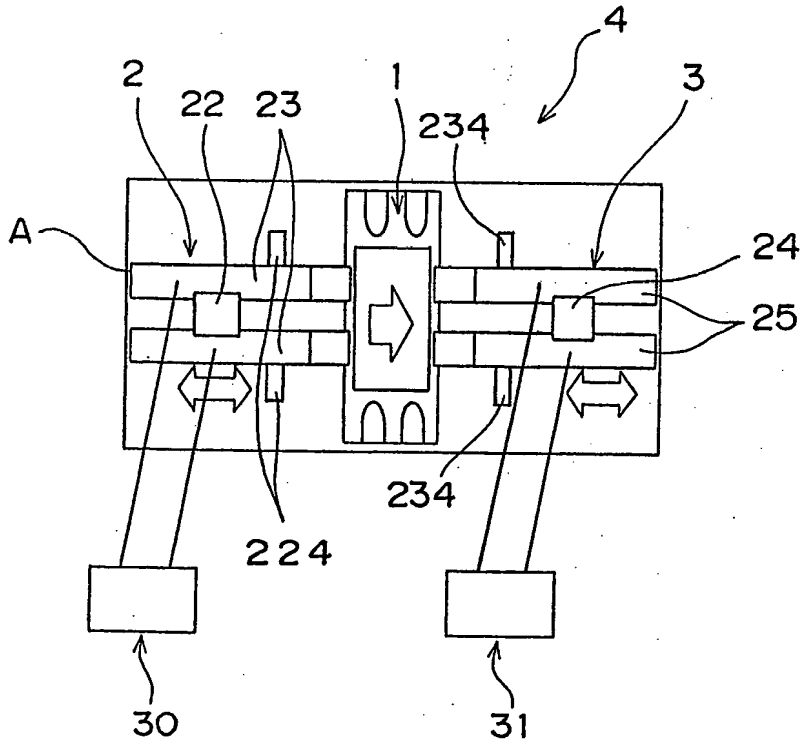

4
2
22
23
1
234
3
A
24
25
234
224
30
31

Fig.3

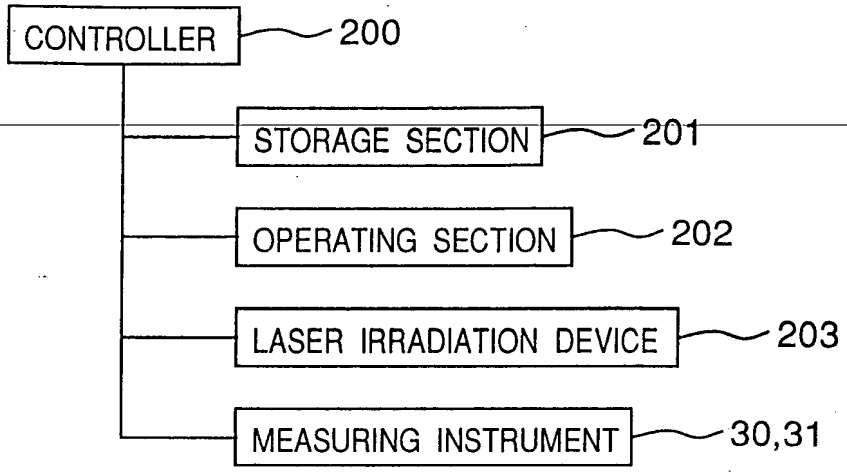

CONTROLLER
200
STORAGE SECTION
201
OPERATING SECTION
202
LASER IRRADIATION DEVICE
203
MEASURING INSTRUMENT
30,31

Fig.4

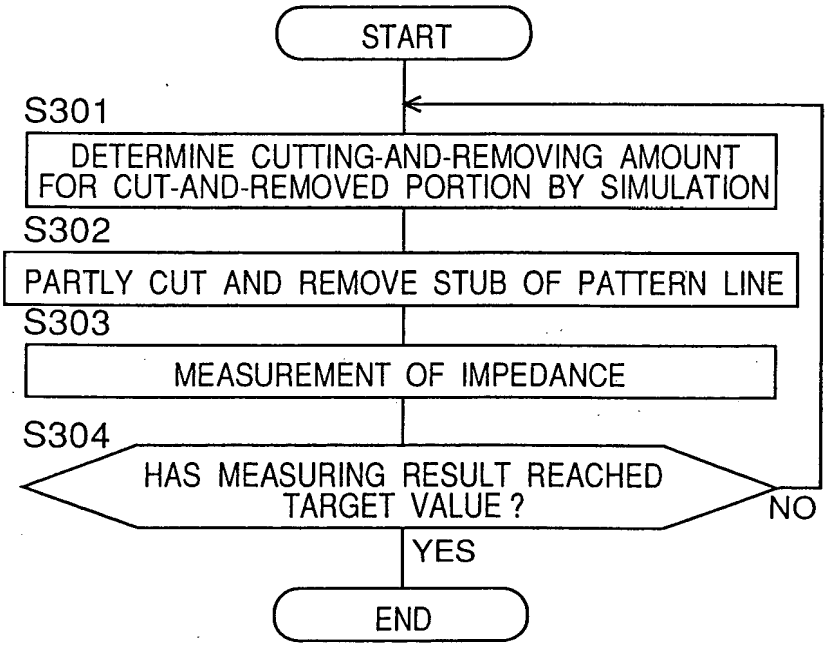

START
S301
DETERMINE CUTTING-AND-REMOVING AMOUNT FOR CUT-AND-REMOVED PORTION BY SIMULATION
S302
PARTLY CUT AND REMOVE STUB OF PATTERN LINE
S303
MEASUREMENT OF IMPEDANCE
S304
HAS MEASURING RESULT REACHED TARGET VALUE ?
NO
YES
END

Fig. 5A

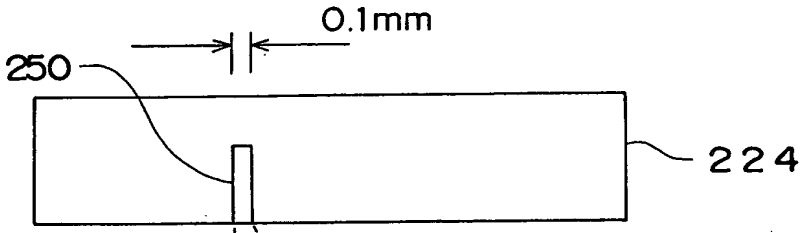


Fig. 5B

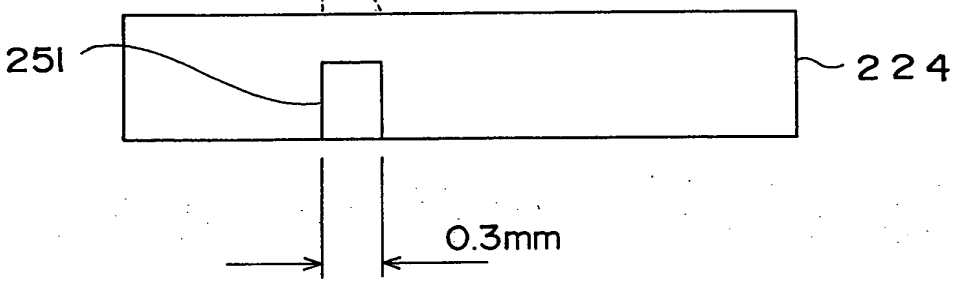


Fig. 6A

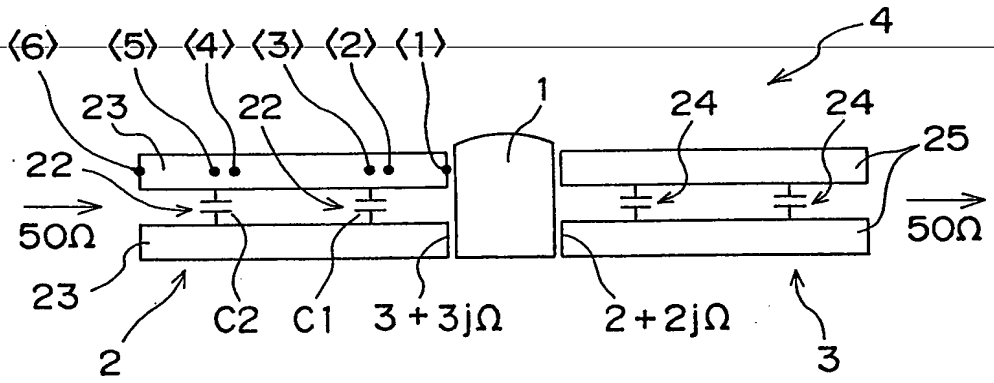

⟨6⟩
⟨5⟩
⟨4⟩
⟨3⟩
⟨2⟩
⟨1⟩
4
23
22
1
24
24
25
22
50Ω
50Ω
23
C2
C1
3+3jΩ
2+2jΩ
2
3

Fig.6B

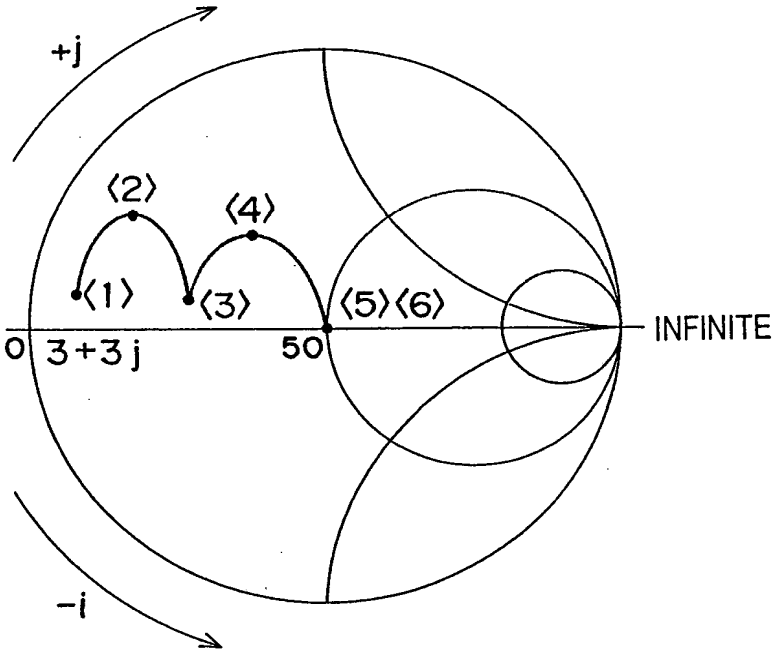

+j
⟨2⟩
⟨4⟩
⟨1⟩
⟨3⟩
⟨5⟩⟨6⟩
INFINITE
0
3+3j
50
-i

Fig.7

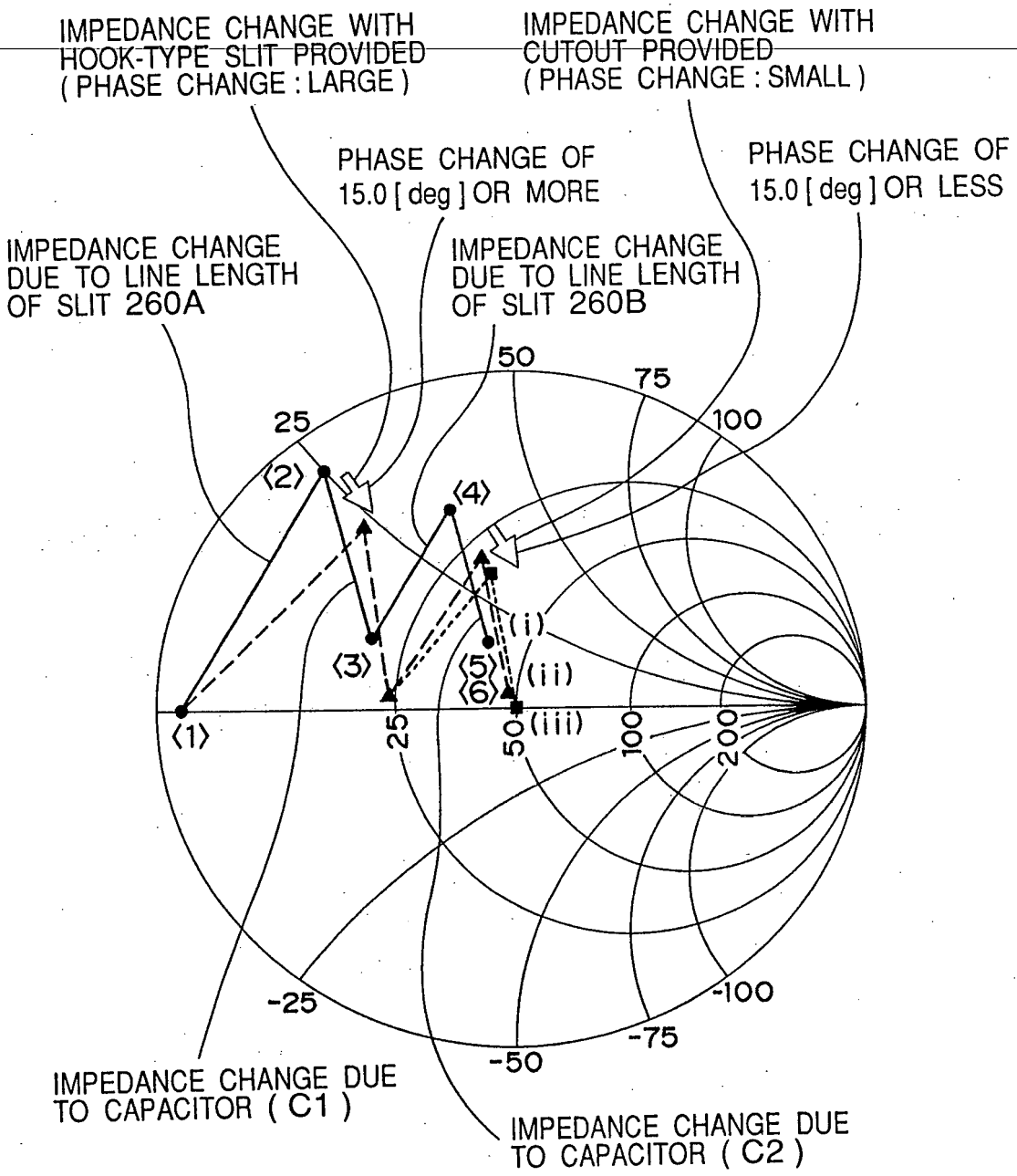

IMPEDANCE CHANGE WITH HOOK-TYPE SLIT PROVIDED (PHASE CHANGE : LARGE)
IMPEDANCE CHANGE WITH CUTOUT PROVIDED (PHASE CHANGE : SMALL)
PHASE CHANGE OF 15.0 [deg] OR MORE
PHASE CHANGE OF 15.0 [deg] OR LESS
IMPEDANCE CHANGE DUE TO LINE LENGTH OF SLIT 260A
IMPEDANCE CHANGE DUE TO LINE LENGTH OF SLIT 260B
50
75
25
100
⟨2⟩
⟨4⟩
(i)
⟨3⟩
⟨5⟩
⟨6⟩
(ii)
⟨1⟩
25
50
(iii)
100
200
-25
-100
-75
-50
IMPEDANCE CHANGE DUE TO CAPACITOR (C1)
IMPEDANCE CHANGE DUE TO CAPACITOR (C2)

Fig.8

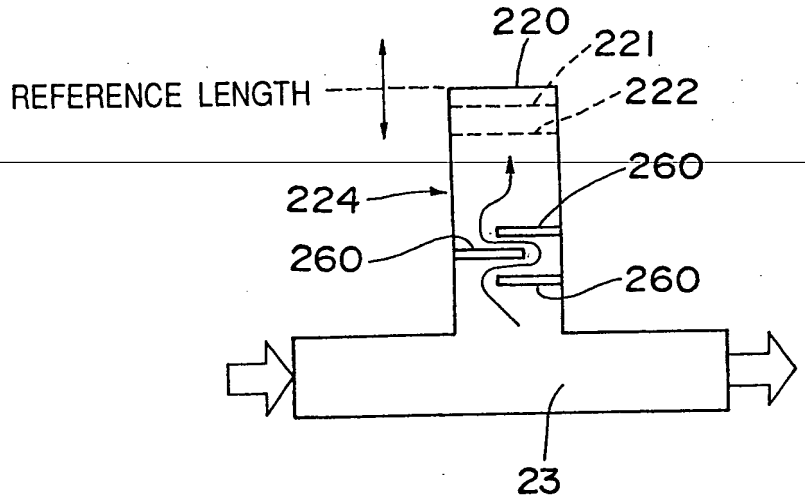

220
221
222
REFERENCE LENGTH
260
224
260
260
23

Fig.9

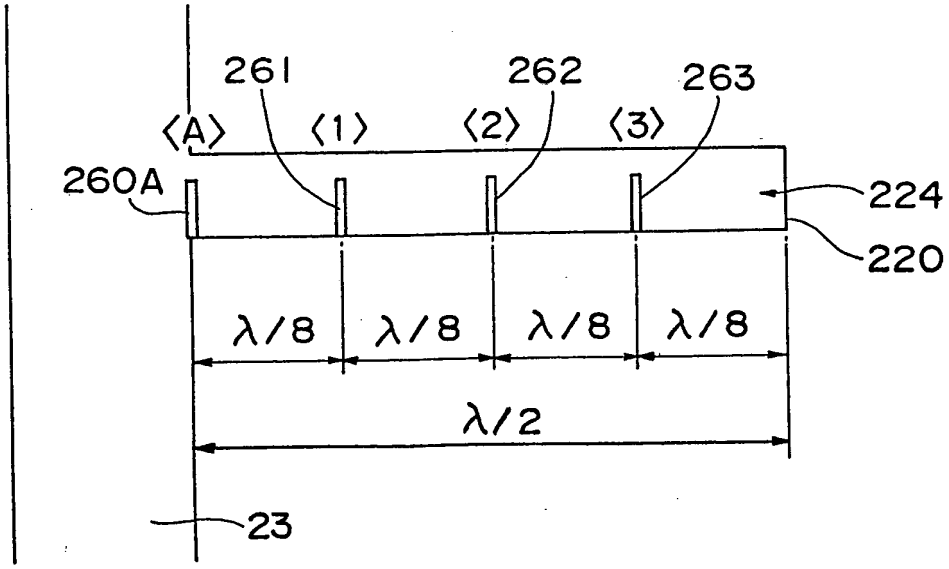

261
262
263
⟨A⟩
⟨1⟩
⟨2⟩
⟨3⟩
260A
224
220
λ/8
λ/8
λ/8
λ/8
λ/2
23

Fig. 10

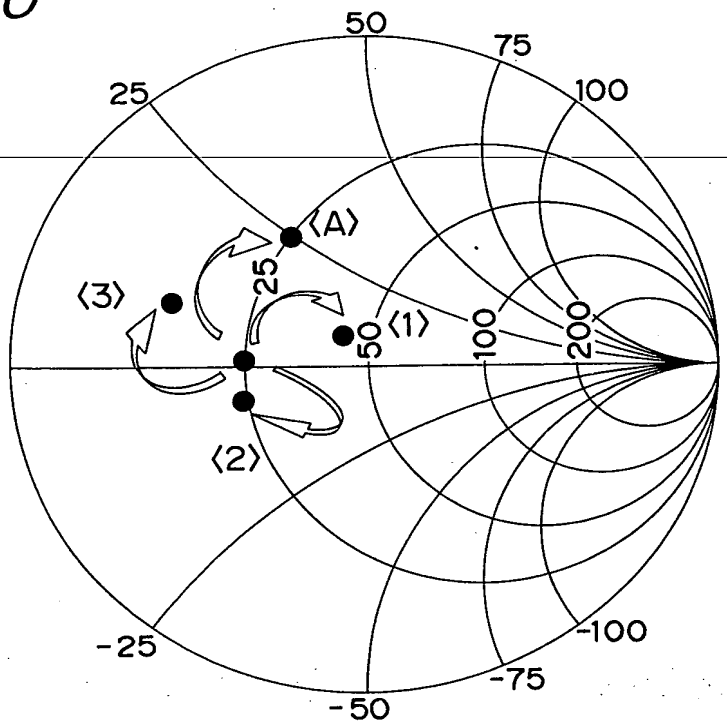

50
75
25
100
⟨A⟩
25
⟨3⟩
50
⟨1⟩
100
200
⟨2⟩
-25
-100
-75
-50

Fig. 11

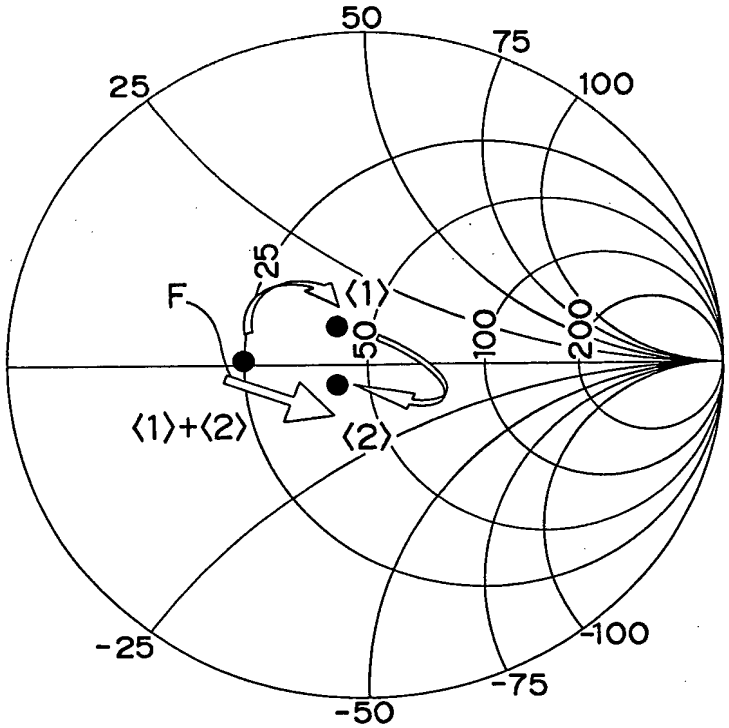

50
75
25
100
25
F
⟨1⟩
50
100
200
⟨1⟩+⟨2⟩
⟨2⟩
-25
-100
-75
-50

Fig. 12

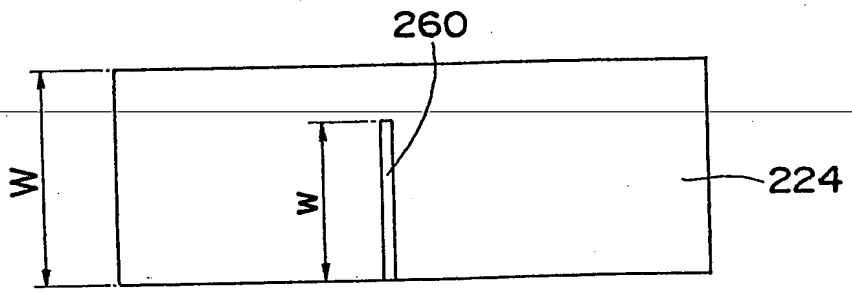


Fig. 13

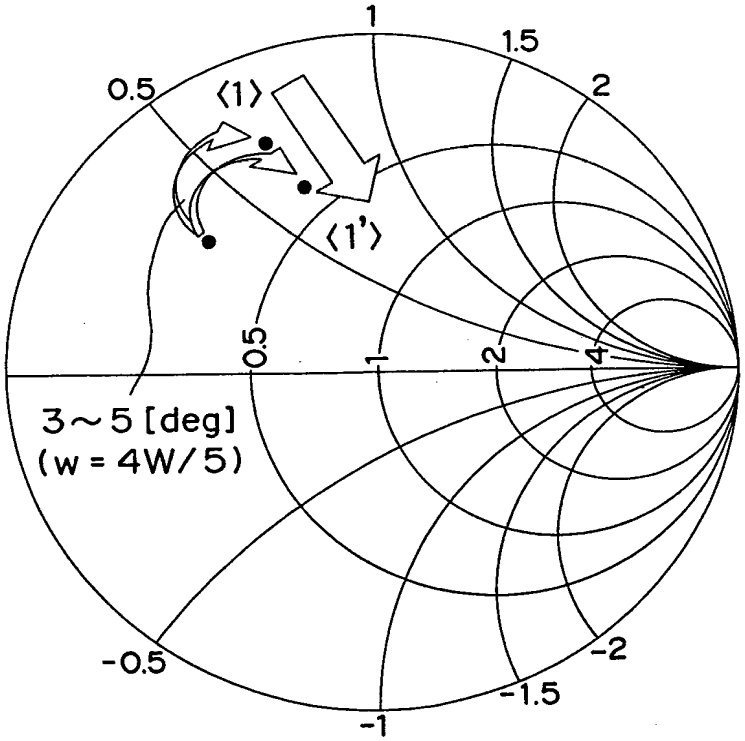


Fig. 14

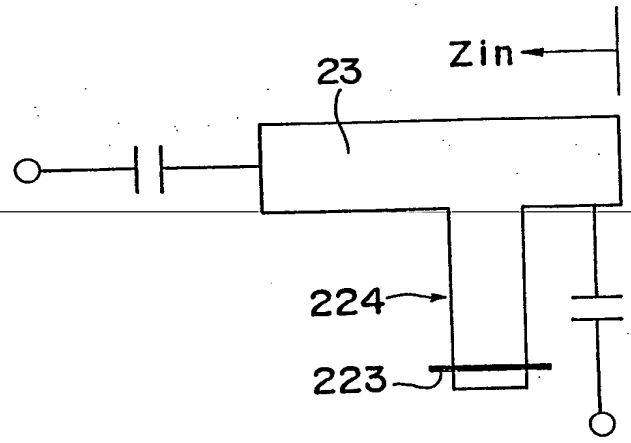


Fig. 15

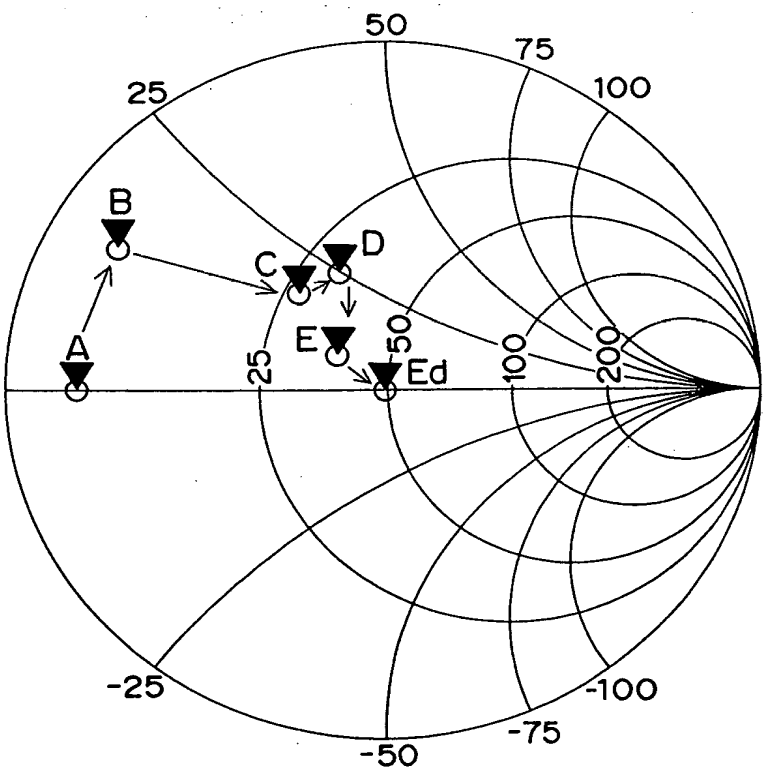


Fig. 16

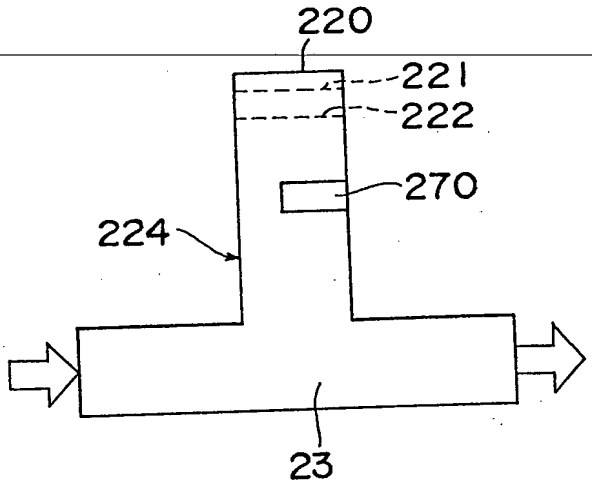


Fig. 17

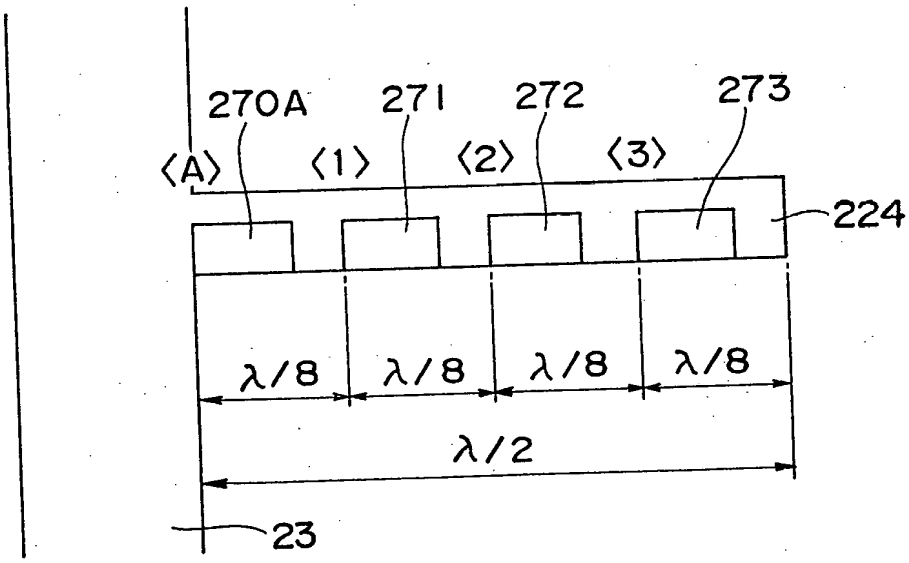


Fig. 18

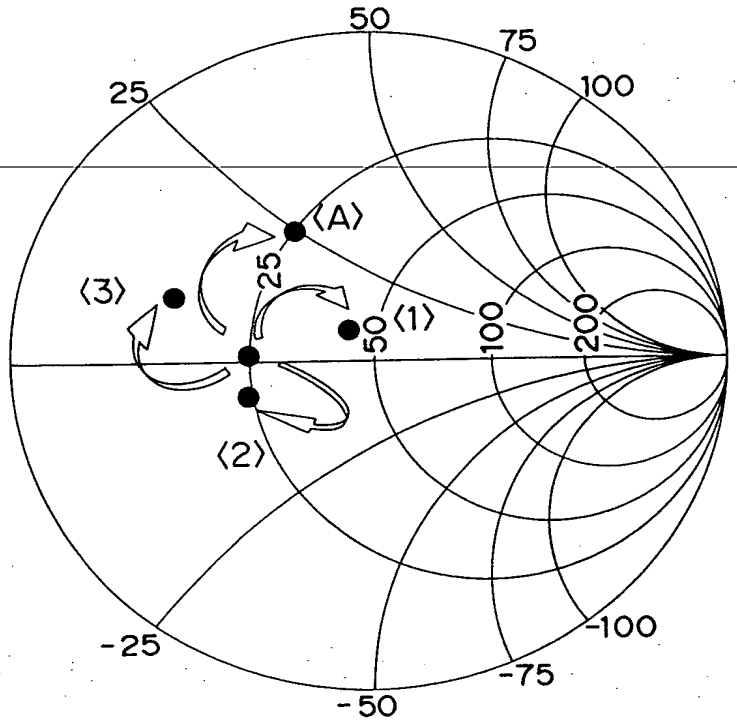

50
75
100
25
⟨A⟩
⟨3⟩
25
50
⟨1⟩
100
200
⟨2⟩
-25
-100
-75
-50

Fig. 19

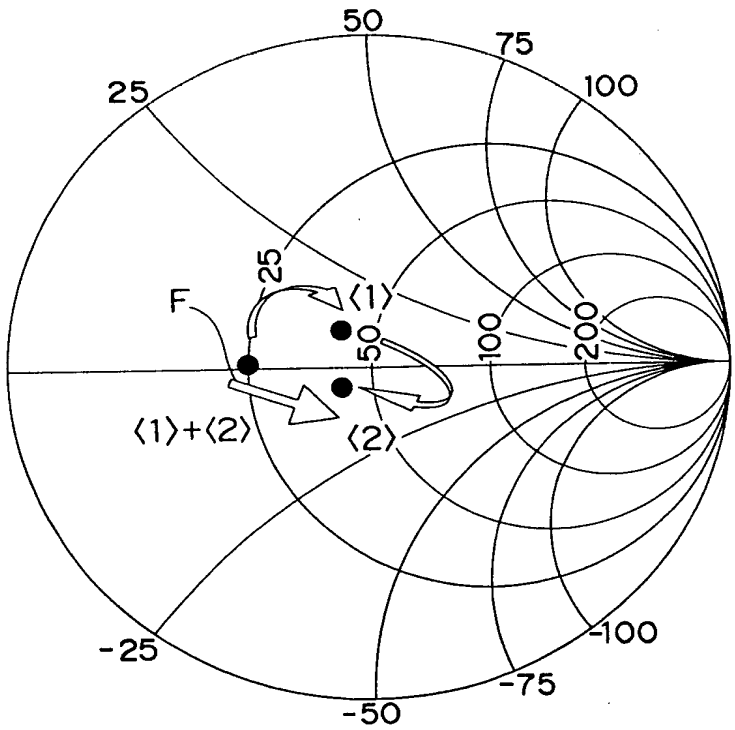

50
75
25
100
25
F
⟨1⟩
50
100
200
⟨1⟩+⟨2⟩
⟨2⟩
-25
-100
-75
-50

Fig. 20

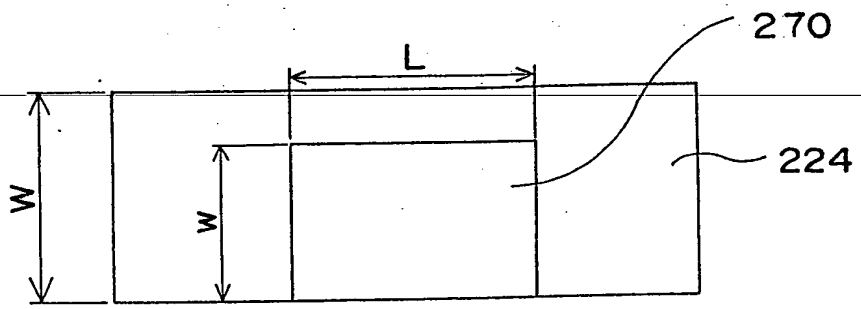
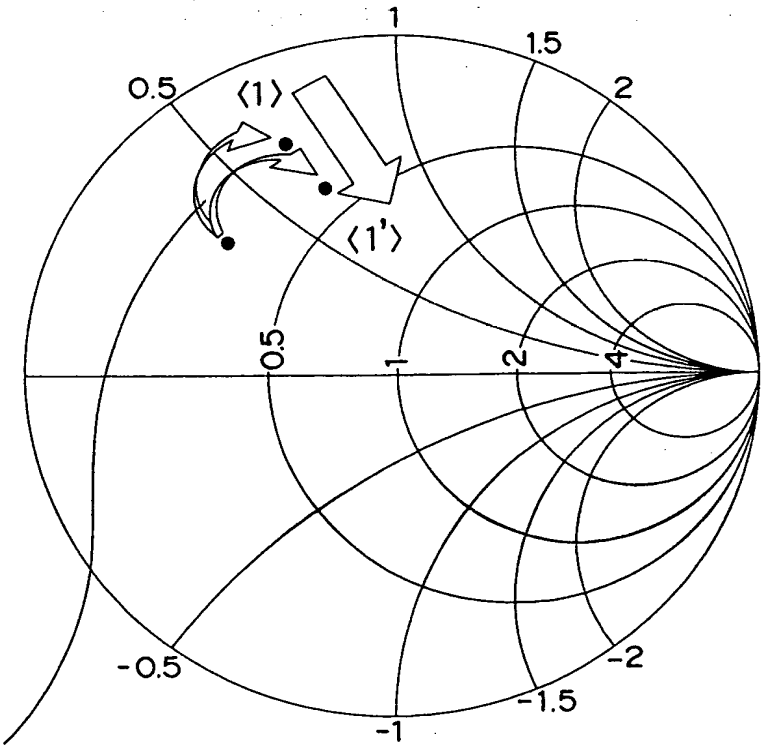


Fig. 21



0.15 ~ 0.35 [deg]
(w = 4W/5, L = 0.10 [mm])

Fig. 22

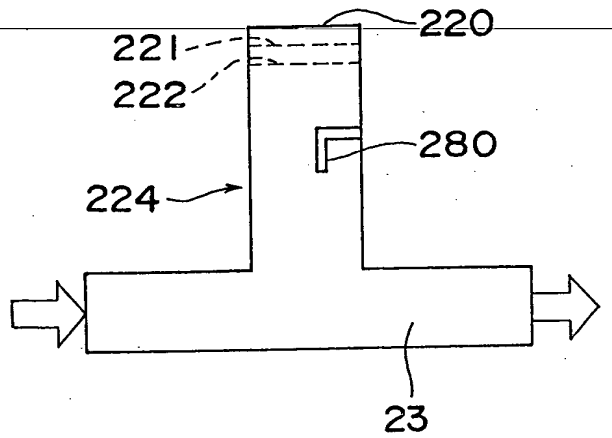


Fig. 23

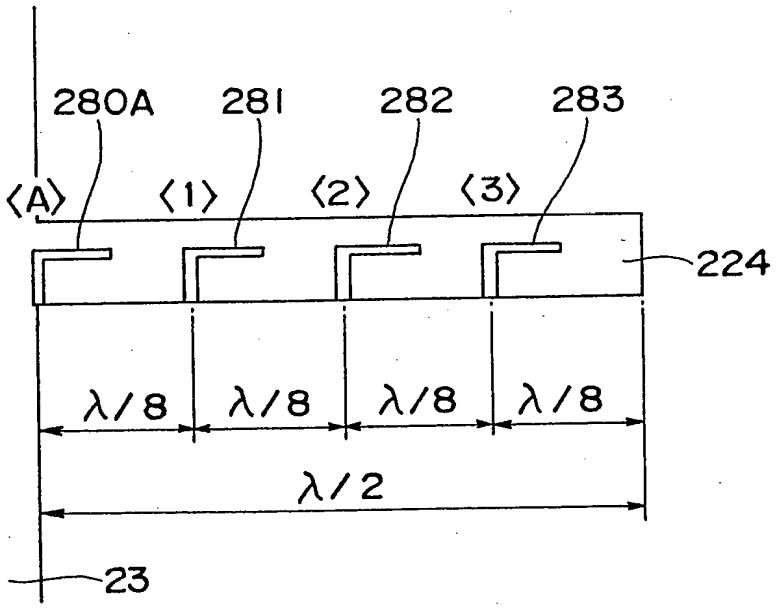


Fig. 24

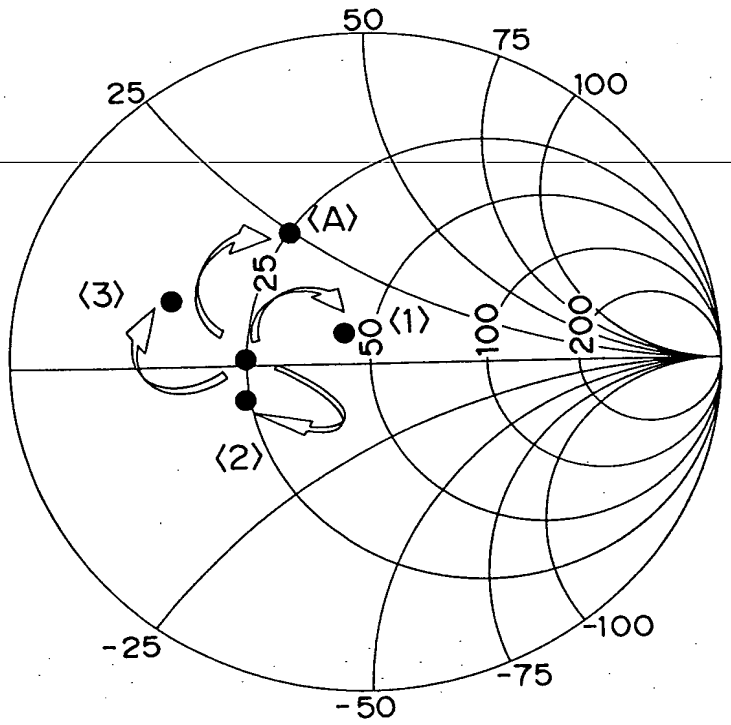

50
75
100
25
⟨A⟩
⟨3⟩
25
50
⟨1⟩
100
200
⟨2⟩
-25
-100
-75
-50

Fig. 25

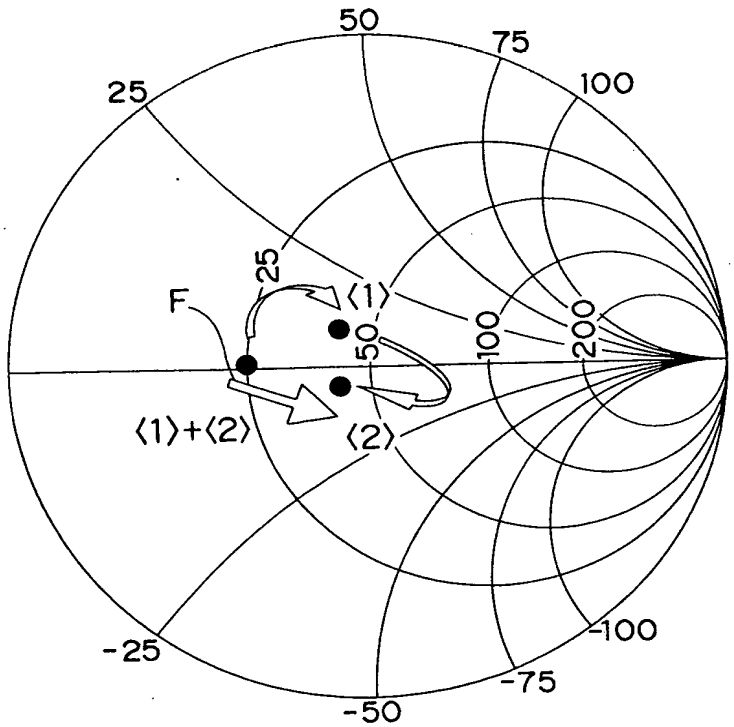

50
75
100
25
25
F
⟨1⟩
50
50
100
200
⟨1⟩+⟨2⟩
⟨2⟩
-25
-100
-75
-50

Fig. 26

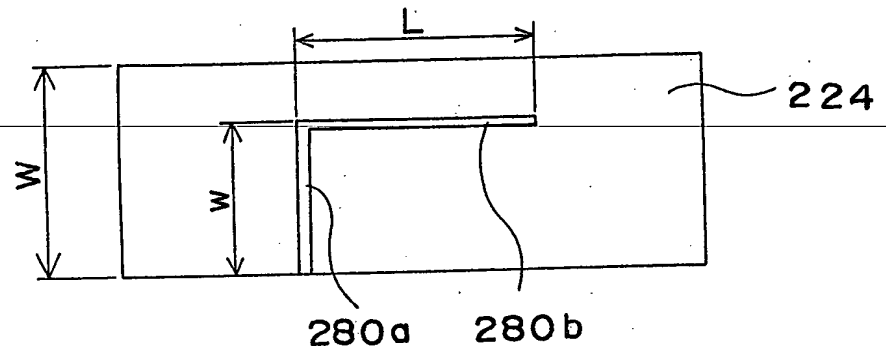

L
224
W
W
280a
280b

Fig. 27

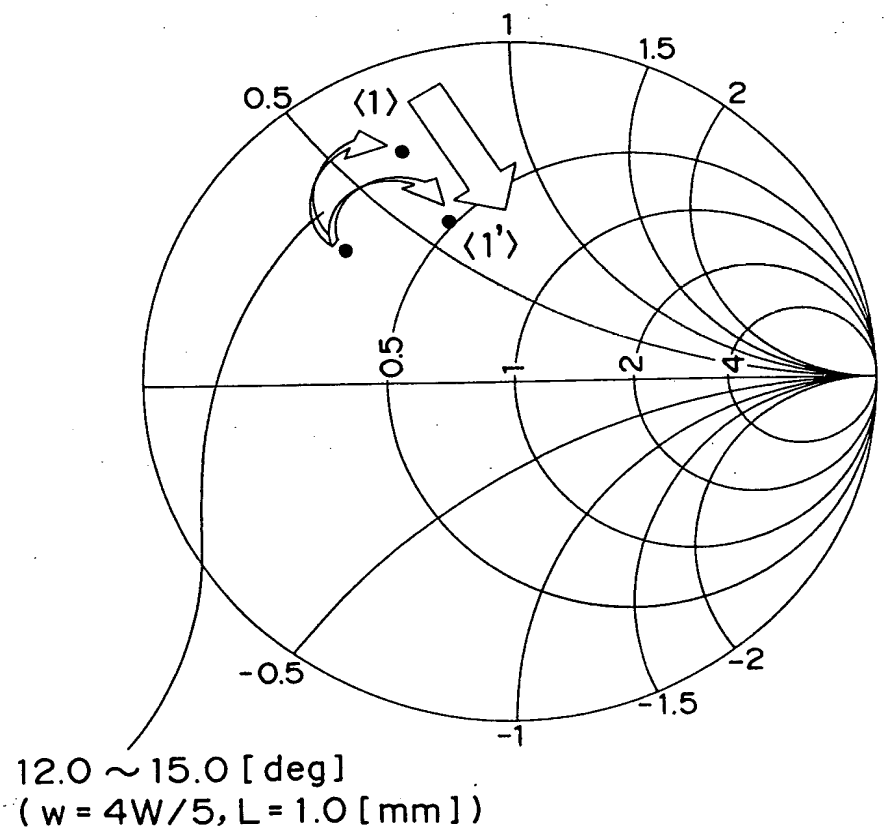

1
1.5
2
0.5
⟨1⟩
⟨1'⟩
0.5
1
2
4
-0.5
-2
-1.5
-1
12.0 ~ 15.0 [deg]
(w = 4W/5, L = 1.0 [mm])

Fig. 28

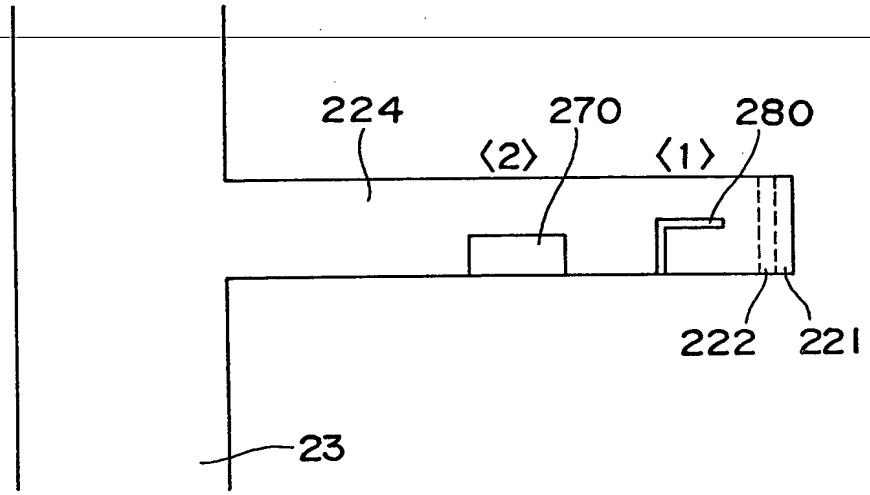


Fig. 29

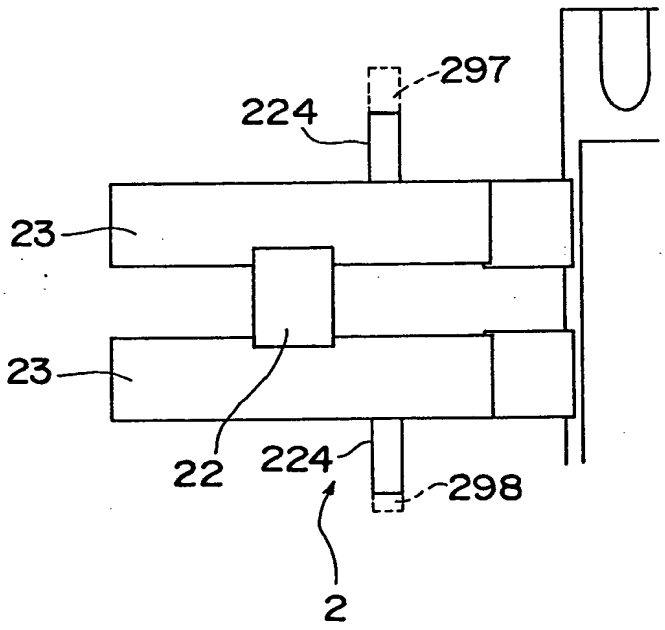


Fig. 30A

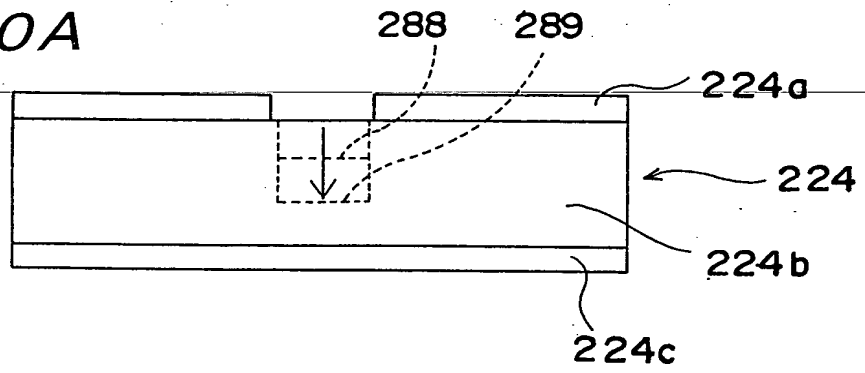


Fig. 30B

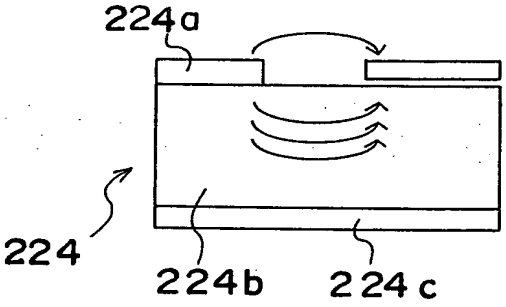


Fig. 30C

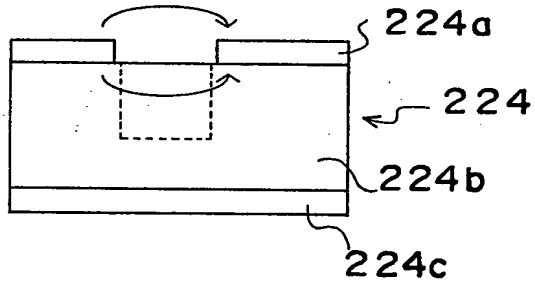


Fig. 31

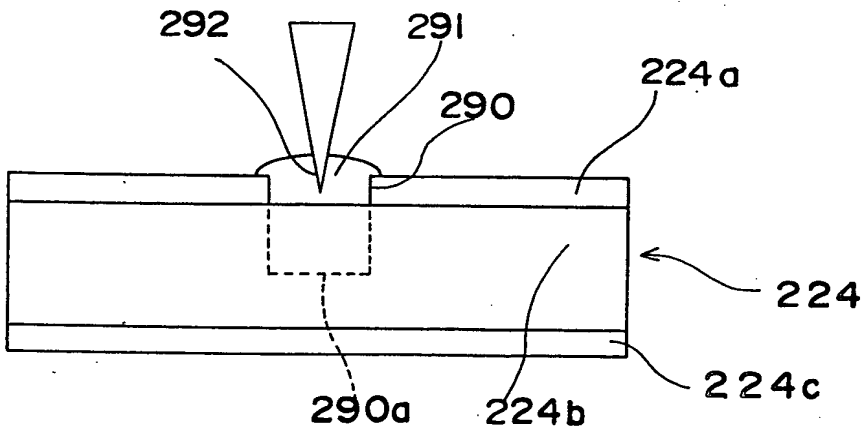


Fig. 32A

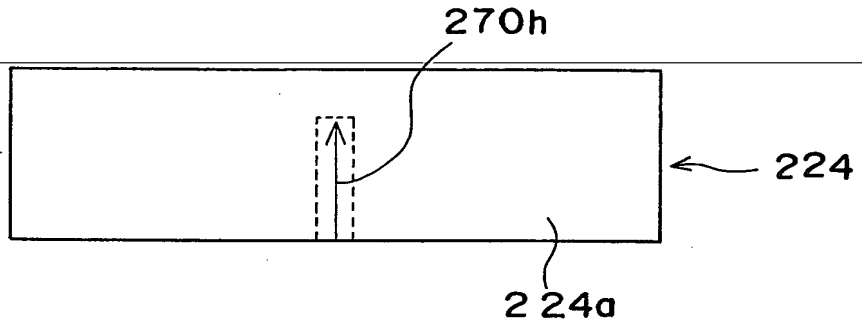


Fig. 32B

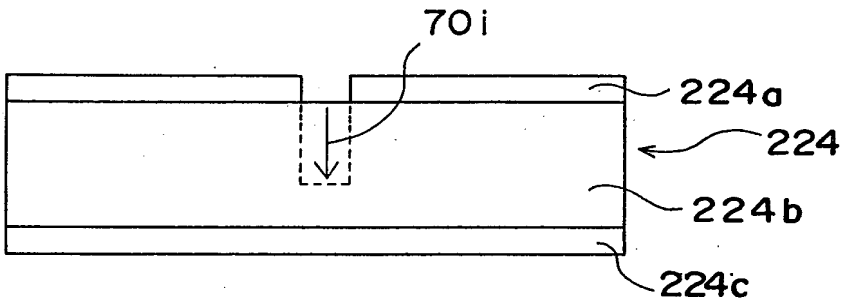


Fig. 32C

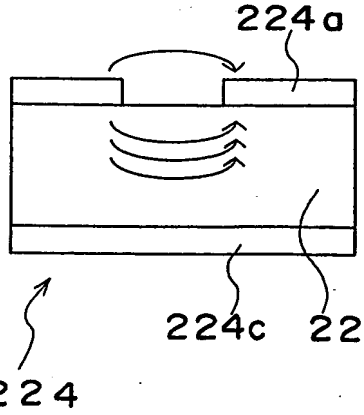


Fig. 32D

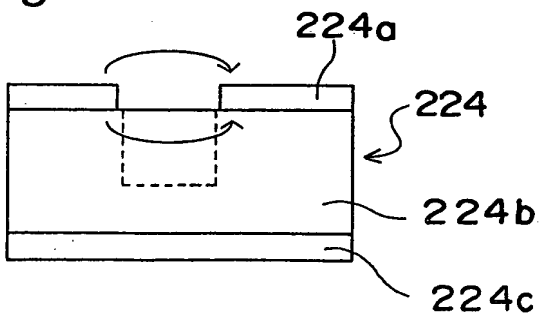


Fig. 33

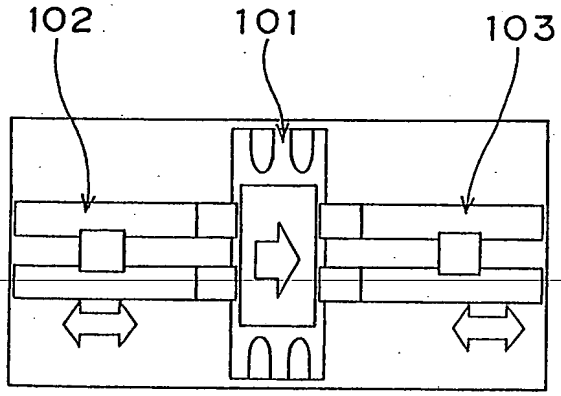


Fig. 34

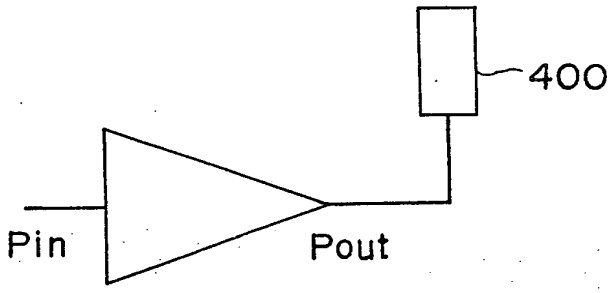
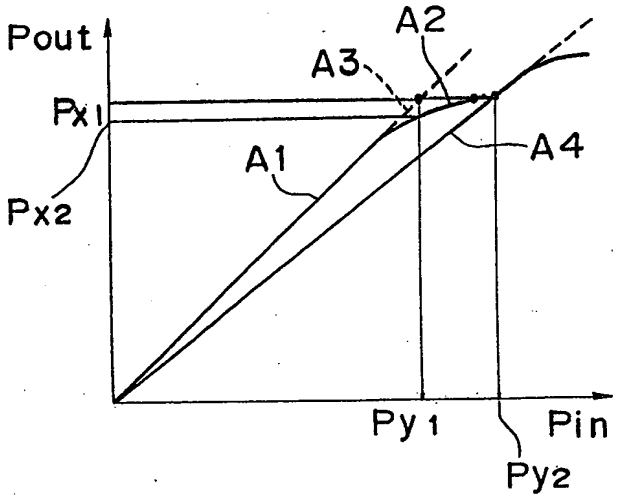



Fig. 35